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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,796	12/29/2005	Kenya Hori	043887-0180	8728

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MCDERMOTT WILL & EMERY LLP
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EXAMINER	
WILLIAMS, JOSEPH L	
ART UNIT	PAPER NUMBER
2879	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/562,796	HORI ET AL.	
	Examiner	Art Unit	
	Joseph L. Williams	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/05,7/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (US 2001/0000335 A1), of record by Applicant.

Regarding claim 1, Yamada ('335) teaches in figure 1C and paragraphs 138-144, a phosphor element comprising: a pair of electrodes (1014, 1015) opposed to each other; and a phosphor layer (1010) sandwiched between the pair of electrodes and having silicon fine particles whose average particle diameter is not more than 100 nm (paragraph 138), wherein at least a part of a surface of the silicon fine particle is covered with a conductive material (1013).

Regarding claim 2, Yamada ('335) teaches the conductive material comprises an oxide or a composite oxide containing at least one element selected from a group of indium, tin, zinc, and gallium (paragraph 115).

Regarding claim 6, Yamada ('335) teaches an electron transport layer between the phosphor layer and at least one of the electrodes (read Mg Layer, paragraph 140).

Regarding claim 7, Yamada ('335) teaches a thin film transistor connected to at least one of the electrodes (paragraph 175).

Regarding claim 8, Yamada ('335) teaches in figures 1C and figure 10 a display device comprising: a two-dimensional phosphor element array in which the phosphor elements are arranged, each phosphor element comprising: a pair of electrodes (1014-1015) opposed to each other; a phosphor layer (1010) sandwiched between the pair of electrodes and having silicon fine particles whose average particle diameter is not more than 100 nm (paragraph 138), wherein at least a part of a surface of the silicon fine particle is covered with a conductive material; and a thin film transistor (paragraph 175) connected to at least one of the electrodes; a plurality of x electrodes (read "row") extending parallel to each other in a first direction which is parallel to a surface of the phosphor element array; and a plurality of y electrodes (read "column") extending parallel to each other in a second direction which is perpendicular to the surface of the phosphor element array, and wherein the thin film transistor of the phosphor element array connects the x electrode to the y electrode.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 2001/0000335 A1), of record by Applicant, in view of Yamazaki et al. (US 6,492,659).

Regarding claims 3 and 4, Yamada ('335) teaches all of the claimed limitations except for the conductive material being a nitride.

Further regarding claims 3 and 4, Yamazaki ('659) teaches an EL device comprised of, in part, a conductive layer made of titanium nitride having a thickness of 5-80 nm for the purpose of improving the conductivity of the display.

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the titanium nitride layer of Yamazaki in place of the conductive material of Yamada for the purpose of improving the conductivity of the display.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 2001/0000335 A1), of record by Applicant, in view of Kahen (US 6,545,409 B2).

Regarding claim 5, Kahen ('409) teaches all of the claimed limitations except for the conductive material being magnesium silver alloy.

Further regarding claim 5, Kahen ('409) teaches an EL device comprised of, in part, a conductive layer made of magnesium silver alloy having a thickness of 20-100 nm for the purpose of improving the conductivity of the display.

Hence, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the magnesium silver alloy layer of Kahen in place of the

conductive material of Yamada for the purpose of improving the conductivity of the display.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (571) 272-2465. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph L. Williams
Primary Examiner
Art Unit 2879